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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/582,194

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EXAMINER

SY, MARIANO ONG

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/582,194	<b>Applicant(s)</b> ELLIOTT ET AL.	
	<b>Examiner</b> MARIANO SY	<b>Art Unit</b> 3657	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2007 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>06/08/2006</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 recites the limitation "a stop mechanism adapted to restrict the motion of the proof mass relative to the chassis in the event of actuation control failure" in lines 2-3. It is vague and indefinite as to what the stop mechanism is. Applicants failed to disclose the stop mechanism in the specification and in the drawings.

3. Claim 14 is rejected under 35 U.S.C. 101 because the claimed invention is not supported by either a method asserted utility or a well established utility.

The method for "the use of an inertial actuator" lacks the steps of use.

Claim 14 is also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a method asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 5, 9-11, 13, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Schubert (US 4,796,873).

Schubert disclosed, as shown in fig. 1, a inertial actuator assembly comprising an actuator chassis adapted to be secured in use to a structure subject in use to external vibration forces, a proof mass 11 supported with respect to the chassis by a proof mass resilient means 13, and a force generating transducer means 23 acting between the chassis and the proof mass for subjecting in use the proof mass to a force applied relative to the chassis, a controller 22 arranged to control in use the excitation of the transducer means, characterized by a feedback means responsive to a measurement of the displacement of the proof mass relative to the chassis (see col. 3, lines 5-13), the controller being arranged to modify the excitation of the force generating transducer means in response to the feedback from the feedback means; wherein the force generating transducer means comprises an electromagnetic motor (see fig. 9).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schubert in view of Beard et al. (US 5,725,066).

Schubert failed to disclose the measurement of displacement is provided by an internal displacement sensor wherein the displacement sensor is an inductive sensor.

Beard et al. teaches, as shown in fig. 5, the use of an inductive displacement sensor 74.

It would have been obvious to one of ordinary skill in the art to merely provide the known inductive displacement sensor into the assembly of Schubert, as taught by Beard

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et al., in order to provide an accurate measurement of the proof mass relative to the chassis.

9. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schubert in view of Wakui (US 6,378,672).

Schubert failed to disclose wherein the feedback signal is proportional to the integral of the measurement of the displacement and wherein the feedback signal is proportional to the derivative of the measurement of the displacement.

Wakui teaches the use of proportional–integral-derivative compensator in an active vibration isolation device in regards to the displacement due to vibration.

It would have been obvious to one of ordinary skill in the art to merely provide the known use of proportional–integral-derivative compensator into the apparatus of Schubert, as taught by Wakui, in order to optimize vibration damping.

10. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schubert in view of Patten (US 6,053,269).

Schubert failed to disclose a temperature sensor.

Patten teaches, as shown in fig. 2, the use of temperature sensor 82.

It would have been obvious to one of ordinary skill in the art to merely provide the assembly of Schubert with the known temperature sensor, as taught by Patten, in order to provide the temperature of hydraulic fluid of the fluid damper.

11. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schubert in view of Beard et al. as applied to claims 1-3 above, and further in view of Patten (US 6,053,269).

Schubert as modified failed to disclose wherein the internal displacement sensor is a strain gauge.

Patten teaches, as shown in fig. 1, the use of strain gage 31. It would have been obvious to one of ordinary skill in the art to merely provide the known use of strain gage into the assembly of Schubert as modified, as taught by Patten, in order to provide an accurate measurement of the proof mass relative to the chassis.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Karnopp et al.	(US 3,807,678)
Garnjost	(US 5,067,684)
Olgac	(US 5,505,282)
Burdisso et al.	(US 5,884,736)
Alcone et al.	(US 6,032,770)
Ivers et al.	(US 6,311,110)
Hayashi et al.	(US 6,327,024)
Tanner	(US 6,752,250)

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARIANO SY whose telephone number is (571)272-7126. The examiner can normally be reached on Mon.-Fri. from 8:30 A.M. to 2:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi, can be reached on 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/MS/

December 4, 2009

/Robert A. Siconolfi/  
Supervisory Patent Examiner, Art  
Unit 3657